

## Water: Basic Information about Regulated Drinking Water Contaminants

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### Basic Information about Pentachlorophenol in Drinking Water

EPA regulates pentachlorophenol in drinking water to protect public health. Pentachlorophenol may cause health problems if present in public or private water supplies in amounts greater than the drinking water standard set by EPA.

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#### What is pentachlorophenol?

Pentachlorophenol is a white organic solid with needle-like crystals and a phenolic odor.

#### Uses for pentachlorophenol.

The greatest use of pentachlorophenol is as a wood preservative (fungicide). Though once widely used as an herbicide, it was banned in 1987 for these and other uses, as well as for any over-the-counter sales.

If you are concerned about pentachlorophenol in a private well, please visit:

- [EPA's private drinking water wells Web site](#)
- [Water Systems Council Web site](#) [EXIT Disclaimer](#)

#### What are pentachlorophenol's health effects?

Some people who drink water containing pentachlorophenol well in excess of the maximum contaminant level (MCL) for many years could experience problems with their liver or kidneys and may have an increased risk of getting cancer.

This health effects language is not intended to catalog all possible health effects for pentachlorophenol. Rather, it is intended to inform consumers of some of the possible health effects associated with pentachlorophenol in drinking water when the rule was finalized.

#### What are EPA's drinking water regulations for pentachlorophenol?

In 1974, Congress passed the Safe Drinking Water Act. This law requires EPA to determine the level of contaminants in drinking water at which no adverse health effects are likely to occur. These non-enforceable health goals, based solely on possible health risks and exposure over a lifetime with an adequate margin of safety, are called maximum contaminant level goals (MCLG). Contaminants are any physical, chemical, biological or radiological substances or matter in water.

The MCLG for pentachlorophenol is zero. EPA has set this level of protection based on the best available science to prevent potential health problems. EPA has set an enforceable regulation for pentachlorophenol, called a maximum contaminant level (MCL), at 0.001 mg/L or 1 ppb. MCLs are set as close to the health goals as possible, considering cost, benefits and the ability of public water systems to detect and remove contaminants using suitable treatment technologies.

The Phase IIB Rule, the regulation for pentachlorophenol, became effective in 1993. The Safe Drinking Water Act requires EPA to periodically review the national primary drinking water regulation for each contaminant and revise the regulation, if appropriate. EPA reviewed pentachlorophenol as part of the Six Year Review and determined that the zero MCLG and 0.001 mg/L or 1 ppb MCL for pentachlorophenol are still protective of human health.

- [More information on the Six Year Review of Drinking Water Standards.](#)

States may set more stringent drinking water MCLGs and MCLs for pentachlorophenol than EPA.

#### How does pentachlorophenol get into my drinking water?

The major source of pentachlorophenol in drinking water is discharge from wood-preserving factories.

A federal law called the Emergency Planning and Community Right to Know Act (EPCRA) requires facilities in certain industries, which manufacture, process, or use significant amounts of toxic chemicals, to report annually on their releases of these chemicals. For more information on the uses and releases of chemicals in your state, contact the Community Right-to-Know Hotline: (800) 424-9346.

- [EPA's Toxics Release Inventory \(TRI\) Web site provides information about the types and amounts of toxic chemicals that are released each year to the air, water, and land.](#)

#### How will I know if pentachlorophenol is in my drinking water?

When routine monitoring indicates that pentachlorophenol levels are above the MCL, your water supplier must take steps to reduce the amount of pentachlorophenol so that it is below that level. Water suppliers must notify their customers as soon as practical, but no later than 30 days after the system learns of the violation. Additional actions, such as providing alternative drinking water supplies, may be required to prevent serious risks to public health.

- [See EPA's public notification requirements for public water systems.](#)

If your water comes from a household well, check with your health department or local water systems that use ground water for information on contaminants of concern in your area.

- [For more information on wells, go to EPA's Web site on private wells.](#)

#### How will pentachlorophenol be removed from my drinking water?

The following treatment method(s) have proven to be effective for removing pentachlorophenol to below 0.001 mg/L or 1 ppb: granular activated carbon.

#### How do I learn more about my drinking water?

EPA strongly encourages people to learn more about their drinking water, and to support local efforts to protect the supply of safe drinking water and upgrade the community water system. Your water bill or telephone book's government listings are a good starting point for local information.

Contact your water utility. EPA requires all community water systems to prepare and deliver an annual consumer confidence report (CCR) (sometimes called a water quality report) for their customers by July 1 of each year. If your water provider is not a community water system, or if you have a private water supply, request a copy from a nearby community water system.

- [The CCR summarizes information regarding sources used \(i.e., rivers, lakes, reservoirs, or aquifers\), detected contaminants, compliance and educational information.](#)
- [Some water suppliers have posted their annual reports on EPA's Web site.](#)

#### Other EPA Web sites

- Find an answer or ask a question about drinking water contaminants on [EPA's Question and Answer Web site](#) or call EPA's Safe Drinking Water Hotline at (800) 426-4791
- [EPA's Integrated Risk Information System](#)
- [EPA's Substance Registry System](#)

Last updated on Monday, May 21, 2012

**Pentachlorophenol at a Glance**

**Maximum Contaminant Level (MCL)** = 0.001 milligrams per Liter (mg/L) or 1 part per billion (ppb)

**Maximum Contaminant Level Goal (MCLG)** = zero

**Health Effects**  
Some people who drink water containing pentachlorophenol in excess of the MCL over many years could experience problems with their liver or kidneys and may have an increased risk of getting cancer.

[Drinking Water Health Advisories provide more information on health effects](#)

**Chemical Abstract Service Registry Number**  
87-86-5

**Sources of Contamination**  
Discharge from wood-preserving factories

[List of all Regulated Contaminants \(PDF\)](#) @ pp. 396K, [About PDF](#)